Claims

[c1]   What is claimed is:

1.A printing method for printing a pixel at a gray level x on paper by a printer, the printer comprising a thermal print head and a ribbon, wherein the thermal print head comprises a heater for heating the ribbon to print pixels from gray levels 1 to m−1 on the paper, the method comprising:

if x is not greater than a value n, heating the ribbon x times and evenly distributing the heating initiation times of the x times between the time point 0 and the time point (m*(x−1)/n), for printing the pixel at gray level x on the paper; and

if x is greater than the value n, heating the ribbon x times and evenly distributing the heating initiation times of the n times between the time point 0 and the time point (m*(n−1)/n) and distributing the heating initiation times of the x−n times after the heating initiation time points of the n times.

[c2]   2.The method of claim 1,wherein if x is greater than a value n, heating the ribbon x times and evenly distribut-ing the heating initiation times of the n times between

the time point 0 and the time point (m*(n−1)/n) and distributing the heating initiation times of the x−n times after the heating initiation time points of the n times in order.

[c3]   3.The method of claim 1, wherein the more heating times of the ribbon, the darker the gray level of the pixel printed by the heater on the paper.

[c4]   4.The method of claim 1,wherein m is equal to 255.

[c5]   5.The method of claim 1,wherein the printer is a thermal printer.

[c6]   6.The method of claim 1,wherein the printer is a photo printer.